

Recombinant Human TYRO3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51035

Size: 10ug, 100ug

Protein Name: Tyrosine-protein kinase receptor TYRO3 (EC 2.7.10.1) (Tyrosine-protein kinase BYK) (Tyrosine-protein kinase DTK) (Tyrosine-protein kinase RSE) (Tyrosine-protein kinase SKY) (Tyrosine-protein kinase TIF)

Synonym: TYRO3, BYK, DTK, RSE, SKY, TIF

UniProt ID: Q06418

UniProt Link: www.uniprot.org/uniprotkb/Q06418/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 890 AA

Molecular Weight: 97 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MALRRSMGRPGLPPLPLPPPPRLGLLLLAALASLLLPESAAAGLKL MGAPVKLTVSQGGQPVKLNCSVE
GMEEPDIQWVKDGAVVQNLDQLYIPVSEQHWIGFLSLKSVERSDAGRYWCQVEDGGETEISQPVW
LTVEGVPPFTVEPKDLAVPPNAPFQLSCEAVGPPEPVTIVWWRGTTKIGGPAPSPSVLNVGTQST
MFSCEAHNLKGLASSRTATVHLQALPAAPFNITVTKLSSSNASVAWMPGADGRALLQSCTVQVTQA
PGGWEVLAVVVPVPPFTCLLRDLVPATNYSRLVRCANALGPSYADWVPFQTKGLAPASAPQNLHA
IRTDSGLI LEWEEVIPEAPLEGPLGPYKLSWVQDNGTQDELTVEGTRANLTGWDPQKDLIVRVCVSN
AVGCGPWSQPLVVSSHDRAGQQGPPHSRTSWVPVVLGVLTAALALILLRKRKETRFGQAF
DSVMARGEPAVHFRAARSFNRERPERIEATLDSLGISDELKEKLEDVLIPEQQFTLGRMLGKGEFGS
VREAQLKQEDGSFVKVAVKMLKADIIASSDIEEFLREAAACMKEFDHPHVAKLVGVSLRSRAKGR LPIP
MVILPFMKHGD LHAFLASRIGENPFNLPLQTLIRFMVDIACGMEYLSSRNFIHRDLAARNCMLAEDM
TVCVADFGLSRKIYSGDYRQGCASKLPVKWLALESLADNLYTVQSDVWAFGVTMWEIMTRGQTPY
AGIENAEIYNYLIGGNRLKQPPECMEDVYDLMYQCWSADPKQRPSFTCLRMELN ILGQLSVLSASQ
DPLYINIERAE EPTAGGSLELPGRDQPYSGAGDGSGMGAVGGTPSDCRYILTPGG LAEQPGQAEHQ
PESPLNETQRLLLLQQGLLPHSSC

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Tyrosine-protein kinase receptor TYRO3 (EC 2.7.10.1) (Tyrosine-protein kinase BYK) (Tyrosine-protein kinase DTK) (Tyrosine-protein kinase RSE) (Tyrosine-protein kinase SKY) (Tyrosine-protein kinase TIF) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to several ligands including TULP1 or GAS6. Regulates many physiological processes including cell survival, migration and differentiation. Ligand binding at the cell surface induces dimerization and autophosphorylation of TYRO3 on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with PIK3R1 and thereby enhances PI3-kinase activity. Activates the AKT survival pathway, including nuclear translocation of NF-kappa-B and up-regulation of transcription of NF-kappa-B-regulated genes. TYRO3 signaling plays a role in various processes such as neuron protection from excitotoxic injury, platelet aggregation and cytoskeleton reorganization. Also plays an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response by activating STAT1, which selectively induces production of suppressors of cytokine signaling SOCS1 and SOCS3.; (Microbial infection) Acts as a receptor for lassa virus and lymphocytic choriomeningitis virus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope.; (Microbial infection) Acts as a receptor for Ebolavirus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope.

Subcellular Localization: Cell membrane; Single-pass type I membrane protein.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.